

CLAIMS

1. An RF tracking system, comprising:

a shell for holding a plurality of containers for storing a material which interferes with RF communications, the shell including a bottom container supporting surface and a plurality of leg extensions attached thereto and extending away from the bottom surface;

at least one RF tag attached to a first one of the leg extensions and including a memory arrangement storing data relating to at least one of an identity of the shell, an identity of the containers held in the shell and a material stored in the containers;

at least one RF scanner communicating with the tag to collect the data; and

a computing arrangement including a database and communicating with the scanner to update the database as a function of the collected data,

wherein the tag is situated at a predetermined distance away from the containers held in the shell to overcome an electromagnetic dampening effect of the material.

2. The system according to claim 1, wherein the material includes at least one of a liquid and a metal.

3. The system according to claim 1, wherein the computing arrangement updates the database in real time.

4. The system according to claim 1, wherein the at least one RF tag is mounted on the first extension leg in such a manner that when the shell rests on the plurality of leg extensions, the RF tag is maintained substantially parallel to the RF scanner.

5. The system according to claim 1, wherein a further RF tag is attached to a second one of the plurality of leg extensions, the second leg extension being located diagonally opposite to the first leg extension.
6. The system according to claim 1, wherein the tag has a substantially L shape.
7. The system according to claim 1, wherein the tag is embedded within the leg extension.
8. The system according to claim 1, wherein the tag includes one of an active RF tag and a passive RF tag.
9. The system according to claim 1, wherein the tag and the material is separated by a predetermined distance.
10. The system according to claim 9, wherein the predetermined distance corresponds a wavelength of a radio wave utilized for the RF communications between the tag and the scanner.
11. The system according to claim 1, wherein the computing arrangement generates a response signal as a function of the collected data.
12. The system according claim 11, wherein the response signal is transmitted to the tag to update the data.
13. A shell for holding a plurality of containers which stores a material, comprising:
 - a bottom container supporting surface;
 - a plurality of leg extensions attached thereto and extending

away from the bottom surface; and

at least one RF tag attached to a first one of the leg extensions and including a memory arrangement storing data relating to at least one of an identity of the shell, an identity of the containers and a material stored in the containers, the tag being situated at a predetermined distance away from the containers to overcome an electromagnetic dampening effect of the material which interferes with RF communications between the tag and an RF scanner.

14. The shell according to claim 13, wherein the scanner collects the data from the tag and provides the collected data to a computing arrangement for processing.

15. The shell according to claim 13, wherein the material includes at least one of a liquid and a metal.

16. The shell according to claim 13, wherein the shell has a substantially rectangular shape.

17. The shell according to claim 13, wherein the at least one RF tag is mounted on the first extension leg in such a manner that when the shell rests on the plurality of leg extensions, the RF tag is maintained substantially parallel to the RF scanner.

18. The shell according to claim 13, wherein a further RF tag is attached to a second one of the plurality of leg extensions, the second leg extension being located diagonally opposite to the first leg extension.

19. The shell according to claim 13, wherein the tag has a substantially L shape.

20. The shell according to claim 13, wherein the tag is embedded within the leg extension.

21. The shell according to claim 13, wherein the tag includes one of an active RF tag and a passive RF tag.

22. The shell according to claim 13, wherein the tag and the material is separated by a predetermined distance.

23. The shell according to claim 22, wherein the predetermined distance corresponds a wavelength of a radio wave utilized for the RF communications between the tag and the scanner.

24. A method, comprising the steps of:

scanning with an RF scanner to detect presence of an RF tag, the RF tag being attached to a shell which holds a plurality of containers for storing a material which interferes with RF communications, the shell including a bottom container supporting surface and a plurality of leg extensions attached thereto and extending away from the bottom surface, the RF tag attached to a first one of the leg extensions and including a memory arrangement storing data relating to at least one of an identity of the shell, an identity of the containers held in the shell and a material stored in the containers;

obtaining data from the RF tag the RF scanner;
providing the data to a computing arrangement; and
generating a predetermined response by the computing arrangement as a function of the collected data and predefined rules,

wherein the RF tag is situated at a predetermined distance away from the containers held in the shell to overcome an electromagnetic dampening effect of the material.

25. The method according to claim 24, wherein the material includes at least one of a liquid and a metal.

26. The method according to claim 24, wherein the predetermined response is to update a database of the computing arrangement as a function of the collected data.

27. The method according to claim 24, wherein the at least one RF tag is mounted on the first extension leg in such a manner that when the shell rests on the plurality of leg extensions, the RF tag is maintained substantially parallel to the RF scanner.

28. The method according to claim 24, wherein a further RF tag is attached to a second one of the plurality of leg extensions, the second leg extension being located diagonally opposite to the first leg extension.

29. The method according claim 24, further comprising the step of:

proving the response to the RF tag via the RF scanner.